



04 DIVISION  
MORTAR

# POLYMER MODIFIED SETTING BED MORTAR



## Superior Adhesion. Excellent Durability.

SPEC MIX® Polymer Modified Setting Bed Mortar (PMSBM) is specifically engineered as a thick mortar setting bed for natural and manufactured paving units. This product contains a unique blend of polymers and other performance enhancing admixtures, allowing it to meet ANSI and ASTM requirements.

SPEC MIX PMSBM can be used as a thick fortified bedding mortar for residential and commercial paving unit applications as well as a joint grouting material between horizontal pavers. It can also be used as a polymer modified dry pack setting bed material in interior and exterior installations allowing light to heavy traffic.

SPEC MIX PMSBM is produced under strict manufacturing standards supported by complete quality control measures. A digital printout displaying the proper proportions per batch may be kept as a permanent record.

Each product is 100% dry, preblended in 80 lb (36.2 kg) or 3,000 lb (1,360.7 kg) bags, eliminating the need to measure and add raw materials and liquid admixtures on site which in turn ensures quality control while increasing jobsite productivity—EVERY JOB!

### TYPICAL MATERIALS

PORTLAND CEMENT  
SAND  
ADMIXTURES



STANDARD (SB-04)  
COLOR (SB-05)

AVAILABLE  
IN COLOR



## POLYMER MODIFIED SETTING BED MORTAR (PMSBM)

### INSTALLATION/APPLICATION

#### Wet Thick & Fortified Setting Bed

When using SPEC MIX PMSBM as a thick fortified bedding material, use only rigid base diaphragms and over reinforced slab on grade concrete. Do not install over compacted aggregate. The substrate must be clean and porous. Dry and hot concrete slabs should be surface dampened. Do not allow water to puddle. Do not use PMSBM for vertical applications. Allow bed material to cure 24 hours before allowing light traffic and 14 days for heavy traffic.

#### Polymer Modified Dry Pack

When using SPEC MIX PMSBM as a zero slump consistency (dry pack) bedding material, the use of reinforcing wire mesh is recommended when placing. Place setting bed mortars following ANSI standards and local building codes at depths consistent with the Architect/Engineer's requirements for the project's flooring system. SPEC MIX PMSBM is available in coarse and fine aggregate formulations to accommodate any application requirement.

A sample of the proposed product will be provided by the manufacturer for architectural approval and testing, if required. Preparation of a sample panel with all materials and masonry systems employed in the final project is imperative. Retain the mock-up or field sample through the completion of the project.

Clean masonry flooring only with a national proprietary cleaning agent (following the manufacturer's instructions) or potable water. SPEC MIX products are custom packaged to the specification. They must be kept dry, covered and protected from weather and other damage.

### SIZES AND EQUIPMENT

SPEC MIX PMSBM is available in 80 lb (36.2 kg) packages for easy hand loading or in 3,000 lb (1,360.7 kg) reusable bulk bags to be used with the various SPEC MIX silo systems. When using the silo system, once the bulk bags of mortar are delivered to the project site, the portable silo is loaded with a job site forklift and the product is dispensed into a mechanical batch mixer.

### MIXING INSTRUCTIONS

**WEAR IMPERVIOUS GLOVES**, such as nitrile.

- Mixing is best accomplished by using a mechanical mixer to ensure optimal workability and performance.
- When application is dry pack, use clean, potable water; add enough water to create a zero-slump, dry pack consistency. Product should retain shape when compressed by hand.

### TYPICAL PHYSICAL PROPERTIES (LABORATORY PREPARED)

<b>Compressive Strength - ASTM C 109</b>	1 day	2,000 PSI (13.7 MPa)
	3 days	3,000 PSI (20.6 MPa)
	7 days	4,000 PSI (27.5 MPa)
	28 days	4,500 PSI (31 MPa)
<b>Air Content - ASTM C 231</b>		5%
<b>Water Retention - ASTM C 1506</b>		88%
<b>Set Times - ASTM C 403</b>	Initial Set	4 hrs, 30 min
	Final Set	6 hrs, 45 min
<b>Water Absorption - ANSI A118.7.3.4</b>		< 5%
<b>Water Absorption - ASTM C 413</b>		< 2%
<b>Flexural Strength - ANSI A118.7.3.7</b>	28 day	> 1,000 PSI (6.8 MPa)
<b>Bond Strength - ASTM C 1583 (*modified)</b>	7 day	> 520 PSI (3.6 MPa)
<b>Shrinkage - ASTM C 157</b>	7 day cure	< 0.1%

### ESTIMATED YIELDS

Bed Depth	Approximate Yield	
	80 lb (36.2 kg) bag	3,000 lb (1,360.7 kg) bag
1 in (25 mm)	8 ft <sup>2</sup> (0.74 m <sup>2</sup> )	300 ft <sup>2</sup> (28 m <sup>2</sup> )
2 in (50 mm)	4 ft <sup>2</sup> (0.37 m <sup>2</sup> )	150 ft <sup>2</sup> (14 m <sup>2</sup> )
3 in (75 mm)	2-2/3 ft <sup>2</sup> (0.25 m <sup>2</sup> )	100 ft <sup>2</sup> (9.3 m <sup>2</sup> )
4 in (100 mm)	2 ft <sup>2</sup> (0.19 m <sup>2</sup> )	75 ft <sup>2</sup> (6.9 m <sup>2</sup> )

- When application is thick fortified mortar bed, use clean, potable water; add the amount of water consistent with optimum workability which provides adequate water to satisfy the initial rate of absorption of the paving units and substrate.
- Mixing times are four to five minutes when using a mechanical batch mixer and should be held consistent from batch to batch.
- Maintain the same mixing procedures to maintain consistency throughout the project.
- Hand mix PMSBM only with written approval by the specifier who should outline procedures.
- Use PMSBM within 2.5 hours after initial mixing.
- Retemper PMSBM only when mixing water is lost due to evaporation.

### LIMITATIONS

SPEC MIX Polymer Modified Setting Bed Mortar should be installed in accordance with the provisions of the local building codes and applicable ASTM, ANSI or CSA standards. Good workmanship coupled with proper detailing and design assures durable, functional, watertight construction. Follow proper cold-weather and hot-weather masonry procedures at temperatures below 40 °F (4 °C) or above 100 °F (38 °C) respectively.



### LIMITED WARRANTY IN THE UNITED STATES

**NOTICE:** Obtain the applicable LIMITED WARRANTY at [www.specmix.com/product-warranty](http://www.specmix.com/product-warranty) or send a written request to SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

**AVISO:** Obtenga la GARANTÍA LIMITADA correspondiente en [www.specmix.com/product-warranty](http://www.specmix.com/product-warranty) o envíe una solicitud por escrito a SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

### IN CANADA

**NOTICE:** Obtain the applicable LIMITED WARRANTY at [www.specmix.com/product-warranty](http://www.specmix.com/product-warranty) or send a written request to SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

**AVIS:** Obtenez la GARANTIE LIMITÉE applicable sur [www.specmix.com/produit-garantie](http://www.specmix.com/produit-garantie). Ou envoyez une demande écrite à SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

### TECHNICAL SUPPORT

- CONTACT YOUR LOCAL SPEC MIX® MANUFACTURER
- VISIT [WWW.SPECMIX.COM](http://WWW.SPECMIX.COM)
- CONTACT SPEC MIX®  
PHONE: 888-773-2649 FAX: 651-454-5315